

What is claimed is:

1 ~~1. A printer control device which controls multiple printers connected~~  
2 to a network circuit, said printer control device comprising:  
3 a detector for detecting a problem in any of the printers;  
4 a selection controller for selecting, when a problem is detected by  
5 the detector, another normally functioning printer to substitute for the printer in  
6 which the problem is detected by said detector; and  
7 a substitution controller for correcting print data, that was to have  
8 been printed out by the printer in which the problem is detected by said  
9 detector, to ensure that quality of the images printed by the selected  
10 substitute printer is the same as that of the images printed by the printer in  
11 which the problem is detected, and for outputting the corrected print data to  
12 the selected substitute printer.

1 2. A printer control device as claimed in claim 1, wherein the print data  
2 includes color print data that indicates a color image, and said substitution  
3 controller performs correction so that a color characteristic of the color image  
4 printed by the printer in which the problem is detected are the same as that of  
5 the color image printed by the selected substitute printer.

1 3. A printer control device as claimed in claim 1, wherein the print data  
2 includes middletone print data that indicates a middletone image, and the  
3 substitution controller performs correction so that a gradation characteristic of  
4 the middletone image printed by the printer in which the problem is detected  
5 are the same as the gradation characteristic of the middletone image printed  
6 by the selected substitute printer.

1 4. ~~A printer control device as claimed in claim 1, wherein when said~~  
2 ~~detector detects a problem in the printer performing a print job, said~~  
3 ~~substitution controller outputs to the selected substitute printer the print data~~

4 for remaining pages not printed by the printer in which the problem is  
5 detected.

1 5. A printer control device as claimed in claim 1, wherein said multiple  
2 printers includes a copying machine.

1 6. A printer control method for controlling multiple printers connected  
2 to a network circuit, said printer control method comprising steps of:  
3 detecting a problem in any of the printers;  
4 selecting, when a problem is detected in said detecting step,  
5 another normally functioning printer to substitute for the printer in which the  
6 problem is detected in said detecting step; and  
7 correcting print data, that was to have been printed out by the  
8 printer in which the problem is detected in said detecting step, to ensure that  
9 quality of the images printed by the selected substitute printer is the same as  
10 that of the images printed by the printer in which the problem is detected, and  
11 for outputting the corrected print data to the selected substitute printer.

1 7. A printer control method as claimed in claim 6, wherein the print  
2 data includes color print data that indicates a color image, and the correction  
3 is performed in said correcting step so that a color characteristic of the color  
4 image printed by the printer in which the problem is detected are the same as  
5 that of the color image printed by the selected substitute printer.

1 8. A printer control method as claimed in claim 6, wherein the print  
2 data includes middletone print data that indicates a middletone image, and  
3 the correction is performed in said correcting step so that a gradation  
4 characteristic of the middletone image printed by the printer in which the  
5 problem is detected are the same as the gradation characteristic of the  
6 middletone image printed by the selected substitute printer.

1 9. A printer control method as claimed in claim 6, wherein when a  
2 problem is detected in the printer performing a print job in said detecting step,  
3 said correcting step outputs to the selected substitute printer the print data for  
4 remaining pages not printed by the printer in which the problem is detected.

1 10. A printer control method as claimed in claim 6, wherein said multiple  
2 printer include a copying machine.

1 11. A computer program product for controlling multiple printers  
2 connected to a network circuit, said computer program product comprising:  
3 detection control for detecting a problem in any of the printers;  
4 selection control for selecting, when a problem is detected by said  
5 detection control, another normally functioning printer to substitute for the  
6 printer in which the problem is detected by said detection control; and  
7 correction control for correcting print data, that was to have been  
8 printed out by the printer in which the problem is detected by said detection  
9 control, to ensure that quality of the images printed by the selected substitute  
10 printer is the same as that of the images printed by the printer in which the  
11 problem is detected, and for outputting the corrected print data to the  
12 selected substitute printer.

1 12. A computer program product as claimed in claim 11, wherein the  
2 print data includes color print data that indicates a color image, and said  
3 correction control performs the correction so that a color characteristic of the  
4 color image printed by the printer in which the problem is detected are the  
5 same as that of the color image printed by the selected substitute printer.

1 13. A computer program product as claimed in claim 12, wherein the  
2 print data includes middletone print data that indicates a middletone image,  
3 and said correction control performs the so that a gradation characteristic of  
4 the middletone image printed by the printer in which the problem is detected

5 ~~are the same as the gradation characteristic of the middletone image printed~~  
6 by the selected substitute printer.

1 14. A computer program product as claimed in claim 11, wherein when  
2 said detection control detects a problem in the printer performing a print, said  
3 correction control outputs to the selected substitute printer the print data for  
4 remaining pages not printed by the printer in which the problem is detected.

1 15. A computer program product as claimed in claim 11, wherein said  
2 multiple printer include a copying machine.

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1 16. A printing system comprising:  
2 a first printer, which is connected to a network, for printing print data;  
3 a second printer, which is also connected to the network to which  
4 said first printer is connected, for printing print data;  
5 a detector for detecting a problem in any one of said first and  
6 second printers;  
7 a controller for selecting, when said detector detects a problem in  
8 said first printer, said second printer as a substitute printer, for correcting print  
9 data that was to have been printed out by said first printer to ensure that  
10 quality of the images printed by said second printer is the same as that of the  
11 images printed by said first printer in which the problem is detected, and for  
12 outputting the corrected print data to said second printer.

1 17. A printing system as claimed in claim 16, wherein the print data  
2 includes color print data that indicates a color image, and said controller  
3 performs correction so that a color characteristic of the color image printed by  
4 said first printer in which the problem is detected are the same as that of the  
5 color image printed by said second printer.

1 18. A printing system as claimed in claim 16, wherein the print data

2 ~~includes middletone print data that indicates a middletone image, and the~~  
3 controller performs correction so that a gradation characteristic of the  
4 middletone image printed by the first printer in which the problem is detected  
5 are the same as the gradation characteristic of the middletone image printed  
6 by the second printer.

1 19. A printing system as claimed in claim 16, wherein when said detector  
2 detects a problem in the first printer performing a print job, said controller  
3 outputs to the second printer the print data for remaining pages not printed by  
4 the first printer in which the problem is detected.

1 20. A printing system as claimed in claim 16, wherein at least one of said  
2 first and second printers is a copying machine.

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